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CONTENT

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A233 Pharmacological effects of strictosamide on Charles River mice

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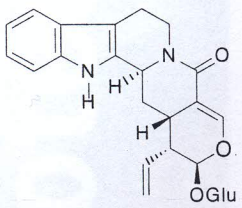
In previous publications we have reported the isolation of indole alkaloids from the stem bark and roots of *Sarcocephalus latifolius* (Smith) Bruce (*Nauclea latifolia* Sm.) (Rubiaceae) collected in Guinea-Bissau, as well as the antisplamodial activivity of its main constituent, strictosamide, which accounts for 11% of the total ethanol extract (1,2). In this communication we present the pharmacological effects of strictosamide on Charles River mice.

Acute toxicity of strictosamide was evaluated according to Pizzi (3) with an i.p. DL_{50} = 600 mg/kg (n=5). The behaviour and physical appearance of the mice were observed immediately after injection of 50, 100 or 200 mg/kg of strictosamide for two succeeding 30 minutes time intervals and hourly until 6 hours. As main effect we observed depression of CNS, with a decrease of motor activity, ataxia and hindlegs paralysis. During the assay, body temperature was decreased with the studied doses. A crude synaptosomal preparation, obtained by homogenation of a pool of 5 animal brains in sucrose solution, was used for *in vitro* evaluation of the strictosamide effects on Na,K-ATPase activity. The profile of Na,K-ATPase inhibition by strictosamide allowed to graphically calculate the IC_{50} as 4.5 mM. These results strongly suggest that strictosamide is the active principle responsible for pharmacological effects of *S. latifolius* extracts, which have been previously reported (4,5).



Strictosamide

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